discussed. The instant response addresses both of these issues raised during the telephonic interview.

Claims 9, 11, and 12 were rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by Yamada et al. (U.S. Patent 6,040,092). Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Yamada.

The rejections are addressed in combination. Such a combined response is proper because each rejection relies solely upon the Yamada reference. Each of the rejections is traversed.

The Advisory Action mailed on July 15, 2003 indicated that the amendment and attached Declaration under Rule 1.132 filed June 24, 2003 did not place the application in a condition for allowance. Moreover, the Advisory Action alleged that the TIMREX specifications for LONZA KS-25 were not relevant to the Yamada patent because the TIMREX specification was dated about 2 years after the filing date of Yamada.

Applicants provide herewith a copy of the Declaration under Rule 1.132 filed June 24, 2003 as Appendix B and a new Declaration under Rule 1.132 executed by Mr. Miura on January 30, 2004 as Appendix C.

The Declaration provided in Appendix B enclosed a Timcal specification sheet with a Date of Issue of November 20, 1996 and a Date of Release of November 20, 1998.

The certificate of analysis enclosed with the Declaration provided in Appendix C was issued with a batch of KS25 graphite shipped on June 28, 1995. The certificate of analysis indicated that the specific surface area of Lonza KS-25 graphite is 11.1 m^2/g and the particle size (D50) is 10.7 microns. The particle size and specific surface area measurements recited in the June 1995 certificate of analysis are consistent with the specification sheet dated November 20, 1996 (e.g., specific surface area of between 8 and 14 m^2/g and a particle size of between 8 and 16 microns).

The office action dated July 31, 2002, asserted that claim 9 was allegedly anticipated by Yamada '092 because:

> Yamada et al. disclose lithium secondary batteries having anode active materials, formed from graphite coated with a less crystalline carbon. (note abstract.) In a specific embodiment, Lonza graphite powder KS 25 is used as the core graphite material. The graphite has a particle size of 14 μm, a surface area of 1.5 m^2/g and a R value of 0.2. (Note Embodiment 11, column 10, lines 56-59.) Note that 1.5 g/m^2 $\leq (42 m^2/g \cdot \mu m^{-0.6})(14\ \mu m)^{-0.6} = 8.6\ m^2/g$.

The Yamada '092 recites the use of Lonza KS-25 graphite in several of the working embodiments and recites the particle size, specific surface area and R value at each recitation. Thus, a review of the Yamada '092 patent reveals the following recitations of Lonza KS-25 graphite:

Table 1

Ref. No.	Column/line	Morphology	Specific Surface Area (m^2/g)	Particle size (μm)	R value
1	9/61-63	Spherical	7.6	18	0.36
2	10/41-43	Flaky	10.3	14	0.2
3	10/58-59	Flaky	1.5	14	0.2
4	12/7-9	Flaky	10.3	14	0.2

Thus, the Yamada '092 patent refers to Lonza KS-25 graphite at four different working examples. Three of the examples (Ref. No. 2, 3, and 4 of Table 1) specify that the Lonza KS-25 graphite has a flaky morphology. Each of Ref. No. 2, 3, and 4 of Table 1 further recite that the Lonza KS-25 graphite has a particle size of 14 μm, d_{002}= 0.336 nm, Lc=22 nm, La=15nm, and R0.2. Ref. No. 2 and 4 of Table 1 specify that the specific surface area of Lonza KS-25 is 10.3 m^2/g which is consistent with the Certificate of Analysis of KS-25 attached to the Declaration of Appendix C and the range of surface areas recited by the TIMREX specification sheet attached to the Declaration of Appendix B.

The specific surface area of 1.5 m^2/g recited in Embodiment 11 (Ref. No. 3 in Table 1) of Yamada '092 is inconsistent with the certificate of analysis for the Lonza KS-25 shipment of June

28, 1995 (Appendix C), the TIMREX specification sheet for Lonza KS-25 issued on November 20, 1996, and the other recitations of Lonza KS-25 graphite within the Yamada '092 patent specification. Thus, Applicants respectfully submit that the specific surface area recited by Yamada '092 in Embodiment 11 (e.g., Ref. No. 3 of Table 1) is a typographical error and that the correct specific surface area for the material recited in Embodiment 11 should be consistent with the other recitations of flaky Lonza KS-25 graphite in Yamada '092 and with the specific surface area range recited in the TIMREX specification sheet for Lonza KS-25 graphite (Appendix B).

The TIMREX specification list dated **20 November 1996** merely provides ranges of acceptable surface areas (i.e., 8-16 m^2/g) and acceptable particle sizes (i.e., 8-14 microns). The TIMREX specification list does not indicate provide physical data for individual lots of LONZA KS-25 and further does not correlate the ranges of surface area and particle sizes. Thus, one skilled in the art would not be able to specify a surface area for the graphite particles recited in Example 11 of Yamada based on the **November, 1996** TIMREX Specification listing.

In contrast the attached declaration by Mr. Miura executed on January 30, 2004 provides a Certificate of Analysis for LONZA KS-25 dated July 3, 1995 (which date precedes the filing dates of the Japanese patent applications from which Yamada claims priority). The Certificate of Analysis indicates a particle size of 11.1 m^2/g and a surface area (D50) of 10.7 microns.

The Declarations of Mr. Miura, e.g., Declarations filed herewith as Appendix B and Appendix C further supports the argument that there is a typographical or clerical error in the recitation of the specific surface area data presented by Yamada in Embodiment 11. That is, the Declaration executed by Mr. Miura, an expert familiar with the production and physical properties of LONZA KS-25 graphite powders, combined with the specification of Yamada taken in its entirety is sufficient to overcome any presumption about the alleged accuracy of the specific surface area measurement for LONZA KS-25 graphite recited in Embodiment 11.

Thus, for at least the reasons discussed herein, the rejection of the claims based on the Yamada '092 reference should be withdrawn.

The Examiner indicated during our telephone interview of March 2, 2004, that she had reservations regarding the significance of the constants in the equation $y \leq 42\ x^{-0.62}$ provided in claim 9, as amended, in which y is the specific surface area and x is the particle size. More particularly, as the Examiner's argument was understood, the importance of the inequality defining graphite materials having a desirable surface area and particle size relationship is unclear because the scatter in experimental data for Experiments 1-9 of the specification and data for Lonza KS graphites presented in Dr. Sato's declaration of January 4, 2001 (copy enclosed as Appendix D) is greater than the differences between the equations $y \leq 42\ x^{-0.62}$ and $y \leq 52\ x^{-0.62}$.

The present invention provides lithium ion secondary batteries having superior undoping capacity (mAh/g), capacity at 2.8 mA/cm^2 (mAh/g), and capacity at 5.6 mA/cm^2 (mAh/g), where the negative electrode is composed of a graphite material having a surface area (y) and a particle size (x) which satisfy the relationship $y \leq x^{-0.62}$.

Applicants note that, in accordance with the plot attached to the January 3, 2002 office action, Examples 1-5 and 9 of the specification satisfy the surface area to particle size relationship of the invention and Examples 6-8 of the specification do not satisfy the surface area to particle size relationship of the invention. The following Table 1 reproduces selected charging capacity data for Examples 1-9 from Tables 1 and 2 of the specification.

Table 1

Examples satisfying $y \leq 42x^{-0.62}$	Undoping Capacity (mAh/g)	Capacity at 2.8 mA/cm^2 (mAh/g)	capacity at 5.6 mA/cm^2 (mAh/g)
1	363	362	334
2	356	350	313
3	360	356	347
4	348	341	285
5	365	368	364
9	345	342	335
Average of Ex. 1-5,9	***356***	***353***	***330***
Examples not satisfying $y \leq 42x^{-0.62}$	Undoping Capacity (mAh/g)	Capacity at 2.8 mA/cm^2 (mAh/g)	capacity at 5.6 mA/cm^2 (mAh/g)
6	349	327	256
7	338	321	206
8	343	330	269
Average of Ex. 6-8	***343***	***326***	***244***

Kindly note that lithium ion secondary batteries comprising a negative electrode made of a carbon material according to one of Examples 1-5 or 9 satisfy the surface area to particle size relationship set forth in claims 1 and 9, e.g., $y \leq 42x^{-0.62}$, and possess superior undoping capacity (mAh/g), capacity at 2.8 mA/cm^2 (mAh/g), and capacity at 5.6 mA/cm^2 (mAh/g) properties to those batteries comprising graphite negative electrodes which do not satisfy the surface area to particle size relationship set forth in claims 1 and 9, i.e., carbon material in which $y > 42x^{-0.62}$.

None of the Lonza KS graphites satisfy the surface area to particle size relationship set forth in the claims, i.e., none of the Lonza KS graphites are below the $y \leq 42x^{-0.62}$ curve provided by claim 9, such that batteries having graphite negative electrodes composed of Lonza graphites, like batteries made with graphites of Examples 6-8, possess inferior undoping capacity (mAh/g), capacity at 2.8 mA/cm^2 (mAh/g), and capacity at 5.6 mA/cm^2 (mAh/g) properties compared to batteries of the present invention.

Applicants have surprisingly discovered that lithium ion negative electrodes comprising a carbon material composed of graphite particles coated with an amorphous carbon layer offer improved electrochemical performance in lithium ion battery applications. More particularly, Applicants have surprisingly discovered that lithium ion battery negative electrodes manufactured using carbon particles comprising an amorphous carbon layer deposited onto graphite particles having a specific surface area and an average particle size which satisfies the inequality of claim 9 improves undoping capacity (mAh/g), capacity at 2.8 mA/cm^2 (mAh/g), and capacity at 5.6 mA/cm^2 (mAh/g) of the electrode compared to electrodes prepared using carbon materials which comprise graphite materials that do not satisfy the inequality of claim 9.

It is respectfully submitted that the subject application is in condition for allowance. Early and favorable action is requested.

Applicants believe that additional fees are not required for consideration of the within Response. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, you are hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,

Date: March 5, 2004

By: _____

John B. Alexander, Ph.D. (Reg. No. 48,399)
EDWARDS & ANGELL, LLP
P.O. Box 55874
Boston MA, 02205
(617) 439-4444

APPENDIX A

Current claims pending in the instant application. The date on which the claims were presented in their current form is included in parentheticals for the convenience of the Examiner.

Claim 9. (12/6/00) A lithium ion secondary battery comprising a positive electrode, a non-aqueous electrolyte, a separator, and a negative electrode comprising a carbon material capable of charging and discharging lithium ions.

said carbon material comprising an amorphous carbon-coated graphitic carbonaceous material prepared by coating the particle surfaces of a graphite material with a carbonizable organic material, calcining and pulverizing the coated graphite material

said graphite material satisfying the following conditions (a) and (b):

(a) when the BET specific surface area of the graphite material is represented by y (m^2/g) and the particle size by x (μm), the graphite material satisfies the following formula (II):

$$y \leq Cx^{-0.6} \ (C=42 \ m^2/(g \cdot \mu m^{-0.6}), \ 4 \leq x \leq 30, \ 0.1 \leq y \leq 20) \qquad (II)$$

(b) in Raman spectroscopic analysis using argon ion laser light with a wavelength of 5,145 Å, the ration of the strength of the peak existing in the region of 1,350-1,370 cm^{-1} (IB) to the strength of the peak existing in the region of 1,570-1620 cm^{-1} (IA), which is represented by an R value (IB/IA), is 0.001 to 0.2.

Claim 10 (12/6/00) A lithium ion secondary battery according to Claim 9, wherein the graphite material satisfies the following condition (c):

(c) in Raman spectroscopic analysis using argon ion laser light with a wavelength of 5,145 Å, the half-value width of the peak existing at 1,570-1620 cm^{-1}, which is represented by a $\Delta\nu$ value, is 14 to 22.

Claim 11. (1/30/03) A lithium ion secondary battery according to claim 9, wherein the R value (IB/IA) is 0.001 to 0.15.

Claim 12. (1/30/03) A lithium ion secondary battery according to claim 9, wherein the R value (IB/IA) is 0.001 to 0.11.

09/155635

APPENDIX B

Copy of the Declaration under Rule 1.132 executed by Mr. Miura on April 23, 2003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:
Hideharu SATO
SERIAL NO. 09/155,635 GROUP ART UNIT: 1745
EXAMINER: Carol Chaney
FOR: LITHIUM ION SECONDARY BATTERY

DECLARATION UNDER 37 C.F.R. 1.132

HONORABLE COMMISSIONER OF PATENTS & TRADEMARKS
WASHINGTON, D.C. 20231

SIR:

Now comes Hitoshi MIURA, a citizen of Japan, and a resident of c/o TIMCAL JAPAN K.K., 6, Ichibancho, Chiyoda-ku Tokyo, Japan, who declares and says that:

1. I graduated from the Musashi Institute of Technology in March, 1973.

2. I was employed by LONZA Japan in 1990-1999 and has been employed by Timcal Japan since 2000. TIMCAL JAPAN K.K. has been independent of LONZA Japan LTD since July 2000, which is Japanese sales company of TIMCAL Ltd as well as TIMCAL America Inc, which was established as a subsidiary company of TIMCAL Ltd whose company's name was changed from Lonza Ltd. on 1995. I have engaged in business relating to a graphite of Lonza KS series.

3. I have been asked by my client of Dr. Hideharu SATO of Mitsubishi Chemical Corporation who is one of the inventor of US Patent Application No. 09/155,635, whether the Lonza KS-25 graphite having particle size of 14 μm and specific surface area of 1.5 m^2/g which was used in USP 6,040,092, Embodiment 11 is present or not.

4. Judging from the attached TIMREX specification as to Lonza KS-25 graphite and my long experience of handling the Lonza KS-25 graphite, I confirm that the specific surface area of Lonza KS-25 graphite is 8-16 m^2/g, **never** 1.5 m^2/g, that is, the value of 1.5 m^2/g is very very very small and impossible.

5. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

6. Further, deponent saith not.

Date: April 23, 2003

Hitoshi Miura

Hitoshi MIURA

TIMCAL G-T

TIMCAL Quality System

TIMREX Specifications

Customer
Agent/Affiliation
Product

LONZA Japan
TIMREX K825 Graphite

Spec. Nr.
Spec. Nr. Timcal 188-1998-a
Status Proposal

Date of Issue: 20.11.98
Date of Revision:
Date of Release: 20.11.98

PURITY		
Ash (510 °C)	%	< 0.1
Moisture	%	< 0.5
Trace Elements (OES)		
Al	ppm	< 50
Ca	ppm	< 300
Si	ppm	< 300
Ti	ppm	< 30
Fe	ppm	< 200
V	ppm	< 20
S	ppm	< 150
DENSITY		
Scott (non bagged)	g/ccm	0.12 - 0.16
SURFACE AREA		
BET	sqm/g	8 - 16
PARTICLE SIZE		
Laser Diffraction (Cilas)		
< 12 micron	%	> 50
< 24 micron	%	> 90
Laser Diffraction (Malvern)		
d 10	micron	2.7 - 4.3
d 50	micron	8 - 14
d 90	micron	22 - 33
PACKAGING		
Paper Bags 20 Kg		

Signature TIMCAL	Signature Customer	Revision

09/155635

APPENDIX C

Copy of the Declaration under Rule 1.132 executed by Mr. Miura on January 30, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:
Hideharu SATO
SERIAL NO. 09/155,635 GROUP ART UNIT: 1745
EXAMINER: Carol Chaney
FOR: LITHIUM ION SECONDARY BATTERY

DECLARATION UNDER 37 C.F.R. 1.132

HONORABLE COMMISSIONER OF PATENTS & TRADEMARKS
WASHINGTON, D.C. 20231

SIR:

Now comes Hitoshi MIURA, a citizen of Japan, and a resident of c/o TIMCAL JAPAN K.K., 6, Ichibancho, Chiyoda-ku Tokyo, Japan, who declares and says that:

1. I graduated from the Musashi Institute of Technology in March, 1973.

2. I was employed by LONZA Japan in 1990-1999 and has been employed by Timcal Japan since 2000. TIMCAL JAPAN K.K. has been independent of LONZA Japan LTD since July 2000, which is Japanese sales company of TIMCAL Ltd as well as TIMCAL America Inc, which was established as a subsidiary company of TIMCAL Ltd whose company's name

was changed from Lonza Ltd. on 1995. I have engaged in business relating to a graphite of Lonza KS series.

3. An attached document to the present Declaration is a

certificate of analysis of KS25 shipped on June 28, 1995 and this certificate of analysis was sent to me by Mr. W. Muller of LONZA G+T AG.

4. In this certificate of analysis, there is a description that: the BET specific surface area of Lonza KS-25 graphite is 11.1 m^2/g and particle size D50 is 10.7 micron.

5. On the other hand, in the TIMREX specification attached with the Declaration executed by me on April 23, 2003 (submitted on June 24, 2003), the specific surface area of Lonza KS-25 graphite is 8-16 m^2/g and particle size D50 is 8-14 micron.

6. Therefore, the specific surface area and particle size D50 of Lonza KS-25 graphite shipped on June 28, 1995 correspond to those of Lonza KS-25 graphite described in the specification of November 20, 1996.

7. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

6. Further, deponent saith not.

Date: January 30 2004

Hitoshi Miura

Hitoshi MIURA

CH-5643 Sins
Telephone 042 66 01 11
Telex 862 652 lonz ch
Telefax 042 66 23 16
Plant: Bodio

LONZA [redacted] G+T

Lonza Japan, Attn. Mrs. Watanabe

LONZA GRAPHITE - CERTIFICATE OF ANALYSIS

CUSTOMER :	LONZA JAPAN LTD.	J TOKYO 104 / JAPAN	
LONZA ORDER NO :	5458	PO ORDER NO :	FAX MR. MIURA
SHIPMENT MARKS :	KS 25		
QUANTITY KG :	200.00	DISPATCH DATE :	28-Jun-95
QC - UNIT NO. :	G-287	10	PAPERBAG(S)

PURITY		
Ash	0.02	%
Moisture	<0.2	%
Trace Elements		
Al	4	ppm
Ca	37	ppm
Cu	<1	ppm
Cr	<0.5	ppm
Ni	2	ppm
Mo	<0.5	ppm
Si	27	ppm
Sb	<2	ppm
As	<0.5	ppm
Pb	<0.8	ppm
Fe	14	ppm
V	6	ppm
S	18	ppm
CRYSTALLINE STRUCTURE		
Lc	> 100	nm
c/2	0.3357	nm
DENSITY		
Xylene	2.256	g/ccm
Scott	0.147	g/ccm
SURFACE AR		
BET	11.1	sqm/g
PARTICLE SIZE		
LASER DIFFRACTION		
< 1 micron	0.9	%
< 2 micron	1.7	%
< 3 micron	6.4	%
< 4 micron	12.7	%
< 6 micron	25.2	%
< 8 micron	36.1	%
< 12 micron	56.4	%
< 16 micron	74.2	%
< 24 micron	93.0	%
< 32 micron	97.4	%
< 48 micron	99.9	%
D 50 %	10.7	micron

LONZA G + T CERTIFIES THAT BASED UPON THE ABOVE RESULTS THIS GRAPHITE QC UNIT MEETS SPECIFICATION. TESTS WERE RUN ACCORDING TO INTERNATIONAL STANDARDS OR EQUIVALENT METHODS. NO CHANGES WERE MADE TO THIS GRAPHITE THAT WOULD ADVERSELY AFFECT QUALITY .

SINS , 03-Jul-95

LONZA G+T AG

i.a. W. Müller

09/155635

APPENDIX D

Copy of the Declaration under Rule 1.132 executed by Dr. Sato on December 8, 2000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF:
Hideharu SATO
SERIAL NO. 09/155,635 GROUP ART UNIT: 1745
EXAMINER: Carol Chaney
FOR: LITHIUM ION SECONDARY BATTERY

DECLARATION UNDER 37 C.F.R. 1.132

HONORABLE COMMISSIONER OF PATENTS & TRADEMARKS
WASHINGTON, D.C. 20231

SIR:

Now comes Hideharu SATO, a citizen of Japan, and a resident of c/o Mitsubishi Chemical Corporation, Tsukuba Research Center, 3-1, Chuo 8-chome, Amicho, Inashiki-gun, Ibaraki-ken, Japan, who declares and says that:

1. received a doctor's degree in engineering from Tokyo Institute of Technology in March, 1995.

2. I have been employed by Mitsubishi Chemical Corporation since April 1995; and was engaged in the study of negative electrode for lithium ion secondary battery.

3. I am one of the inventors of U.S. Patent Application, Serial No. 09/155,635.

4. I have read the Office Action dated October 18, 1999, have understood the Examiner's rejection of the invention

claimed in the above application. Then, the following experiments for LONZA KS 6, 15, 25, 44 and 75 graphites were conducted.

(1) Measurement of particle size of LONZA KS 6, 15, 25, 44 and 75:

Particle size determination was made by using a laser diffraction type particle size analyzer (Horiba LA-700, manufactured by HORIBA, LTD.). The automatically calculated average particle size was used as standard of evaluation.

(2) Measurement of specific surface area of LONZA KS 6, 15, 25, 44 and 75:

The specific surface area was measured according to the BET one-point method by using Autosorb AMS-8000 manufactured by Ohkura-Riken Co., Ltd. (absorbing nitrogen gas).

The results are shown in the following Table 1.

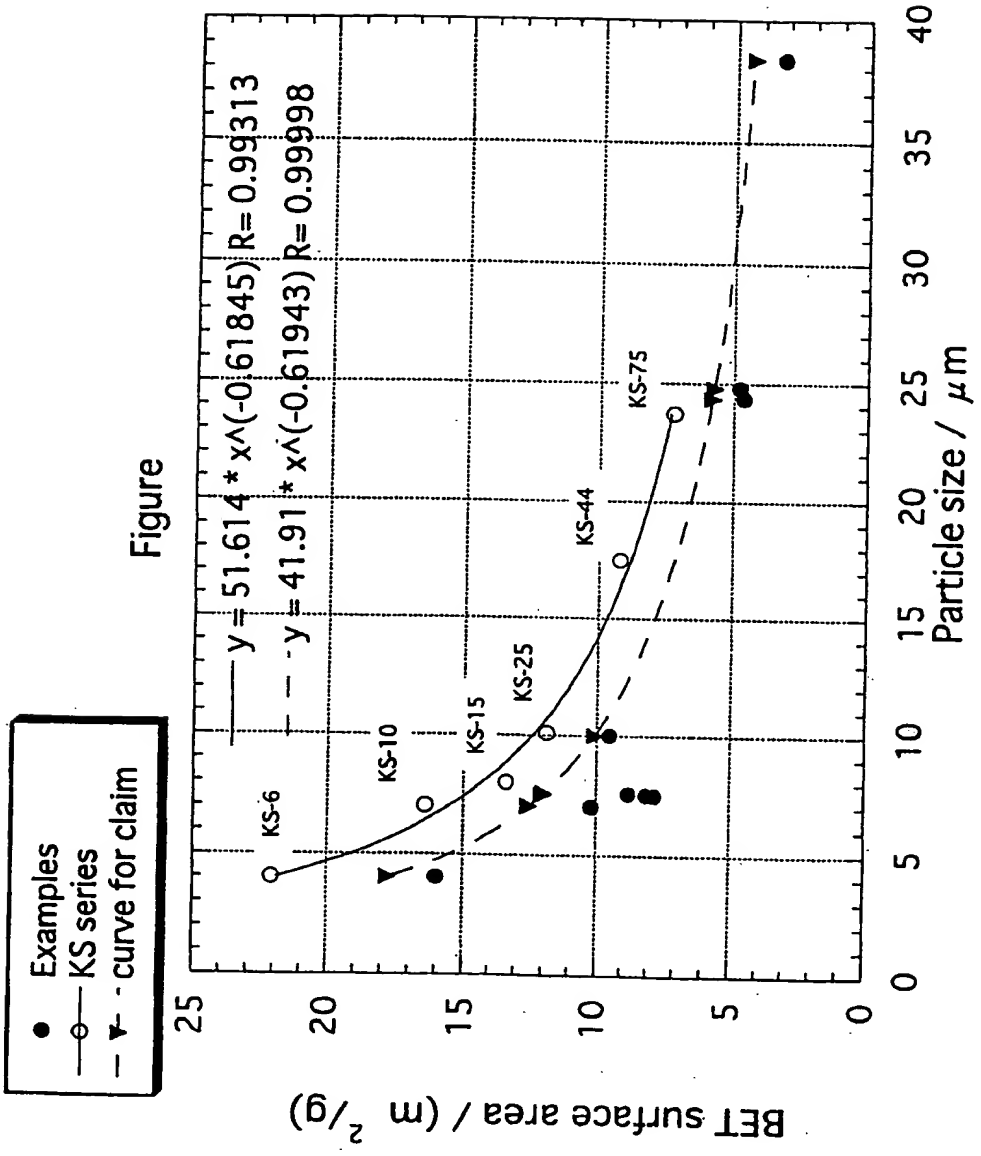
Table 1

	Particle size	Specific surface area
LONZA KS 6	4.9 μm	22.0 m^2/g
LONZA KS 15	8.0 μm	13.5 m^2/g
LONZA KS 25	10.1 μm	11.9 m^2/g
LONZA KS 44	17.5 μm	9.2 m^2/g
LONZA KS 75	23.7 μm	7.2 m^2/g

The values shown in Table 1 are collectively shown in the following figure. Also, the particle sizes and specific surface areas of graphite used in Examples of the present invention are collectively shown in the following figure.

In the figure, the results of the above LONZA KS series are plotted as "○". Also, the results of Example in the present invention and the point on the curve satisfying claim 1 according to the present invention are plotted as "●" and "▼", respectively.

Figure


Examples
KS series
- curve for claim
y = 51.614 * x^(-0.61845) R= 0.99313
y = 41.91 * x^(-0.61943) R= 0.99998
KS-6
KS-10
KS-15
KS-25
KS-44
KS-75
BET surface area / (m 2/g)
Particle size / μm
0
5
10
15
20
25
30
35
40

(3) Deviation of particle size and specific surface area of LONZA KS 15, 25 and 44

In LONZA KS 25, the deviation of particle size and specific surface area in one lot (same lot No, but difference transportation date) were determined. The measurements of particle size and specific surface area were conducted by the same way mentioned above. The results are shown in the following Table 2. The following two samples of LONZA KS 25 were different in the shipment date only.

Table 2

Grade	KS 25	
Lot No.	G-287	G-287
Shipment date	February 5, 1993	June 28, 1995
BET surface are (m^2/g)	11.9	11.9
Particle size (μm)	10.1	10.0

In LONZA KS 15 and 44, the deviation of particle size and specific surface area in some lots were determined. The measurements of particle size and specific surface area were conducted by the same way mentioned above. The results are shown in the following Table 2.

Table 3

Grade	KS 15		KS 44			
Lot No.	G-346	H-258	H-036	G-148	I-066B	L-041B
BET surface are (m^2/g)	13.7	13.4	9.5	8.4	9.2	9.1
Particle size (μm)	8.0	8.0	19.0	16.0	17.5	18.8

(4) Remarks

As seen from the above figure, the relationship of particle sizes and specific surface areas of LONZA KS graphite series is represented by the following formula determined by the least squares approach.

$y=51.614x^{(-0.61845)}$

On the other hand, the relationship of particle sizes and specific surface areas in the present invention is represented by the following formula.

$y=42x^{(-0.6)}$

Therefore, the relationship of particle sizes and specific surface areas of LONZA KS graphite series is completely different from that of graphite used in Examples of the present invention.

Further, as seen from Table 2, it is clearly understood that there is little deviation of particle size and specific surface area in one lot.

5. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

6. Further, deponent saith not.

Date: December 8, 2000

Hideharu Sato

Hideharu SATO